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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,088	01/21/2005	Franz Haimer	62753(49338)	7582
21874 7590 04/06/2007 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205			EXAMINER SHAH, SAMIR M	
			ART UNIT 2856	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			04/06/2007	
			DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/522,088

Applicant(s)

HAIMER, FRANZ

Examiner

Samir M. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 10, 13 and 18-31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - (a) As to page 4, line 22 and page 8, line 35, the phrase "not least" is confusing. It is suggested that the phrase be changed to --at least--.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities:
  - (a) As to claim 1, line 15, delete "in that the two" and replace it with --the two--.
  - (b) As to claim 1, last line, the phrase "such connecting elements" renders the claim confusing.
  - (c) As to claim 8, line 4 and claim 26, line 6, delete "and in that" and replace it with --and--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 17 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claims 17 and 29, the phrase "and/or" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-9, 11, 12 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsumoto (US patent 6,658,936 B2 henceforth "Matsumoto").

(a) As to claim 1, Matsumoto discloses a device/measuring apparatus (1) for measuring the rotational unbalance of an article/tire (T), comprising:

a) a spindle unit (100) with a spindle holder/housing (110) and with a spindle (120) mounted on the spindle holder/housing (110) rotatably about an axis of rotation and carrying at one of its two ends a coupling (including upper rim (20) and lower rim (10)) for fastening the article/tire (T) (figures 1, 2; column 8, lines 7-21);

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b) a holder suspension/fixing plate (102) for fastening the spindle unit (100) to a machine base, said holder suspension/fixing plate (102) guiding the spindle holder/housing (110) deflectably in a predetermined measurement direction for unbalance forces (figures 1, 2; column 8, lines 7-21; column 11, lines 10-19);

c) an electric motor (130) driving the spindle (120) in rotation (figures 1, 2; column 11, lines 31-39); and

d) a sensor arrangement (185) measuring the unbalance force in the predetermined measurement direction during rotation of the spindle (120) (figures 1, 2; column 10, line 64 - column 11, line 19), wherein

the spindle unit (100) and the electric motor (130) are combined into a first preassembled subassembly (base (50)) and the holder suspension/fixing plate (102) and the sensor arrangement (185) are combined into a second preassembled subassembly, and the two subassemblies carry connecting elements (including threaded bars (186)), assigned to one another in an indexed manner, for the operationally releasable fastening of the subassemblies to one another (figures 1, 2; column 8, lines 7-21; column 10, line 64 - column 11, line 39).

(b) As to claim 2, Matsumoto discloses the electric motor (130) being arranged axially parallel next to the spindle (120) so as to be offset with respect to the axis of rotation of the spindle (120) and being fastened to the spindle holder (110) (figures 1, 2).

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(c) As to claim 3, Matsumoto discloses the electric motor (130) being arranged in such a way that a plane containing the axes of rotation of the electric motor (130) and of the spindle (120) is inclined with respect to an axial longitudinal plane of the spindle (120) perpendicular to the predetermined measurement direction (figures 1, 2).

(d) As to claim 4, Matsumoto discloses the electric motor (130) and the spindle holder (110) being flanged to a common connecting yoke on the same side of the spindle holder (110) (figures 1, 2).

(e) As to claim 5, Matsumoto discloses the end of the spindle (120) which is remote from the fastening coupling (including upper rim (20) and lower rim (10)) being drive-connected to the electric motor (130) by means of an endless drive belt (142) (figures 1, 2).

(f) As to claim 6, Matsumoto discloses the fastening coupling (including upper rim (20) and lower rim (10)) of the spindle unit (100) having a pneumatic actuating device/air hose (132)/air pipe (115), the compressed-air supply of which comprises a rotary compressed-air coupling/joint (145) which is held on the spindle holder (110) and which is in constant rotational engagement with the spindle (120) (figures 1, 2; column 11, lines 39-63).

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(g) As to claim 7, Matsumoto discloses the rotary compressed-air coupling/joint (145) being provided centrically to the axis of rotation of the spindle (120) on a carrying arm (120a) which is arranged solely within the region surrounded by the drive belt (142) (figures 1, 2; column 11, lines 39-63).

(h) As to claim 8, Matsumoto discloses the holder suspension/fixing plate (102) comprising two holder elements which are connected to one another deflectably in the predetermined measurement direction and of which one can be connected to the spindle holder (110) and the other to the machine base, and the sensor arrangement (185) having at least one force sensor held between the two holder elements (figures 1, 2; column 11, lines 1-30).

(i) As to claim 9, Matsumoto discloses the holder elements being arranged at a distance from one another and being held against one another by at least one spacer rigid in the distance direction and flexible transversely thereto at least in the measurement direction, in particular a plurality of such spacers (note the sensors (185) act as a plurality of spacers for holding the holder elements against one another at a distance) (figures 1, 2; column 11, lines 1-30).

(j) As to claim 11, Matsumoto discloses the holder elements having projections which project in pairs toward one another and between which the force sensor (185) is arranged (figures 1, 2).

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(k) As to claim 12, the disclosure set forth above in the rejection of claim 9 is relied upon. Further, if the threaded bars (186) are loosened, the holder elements would be held against one another flexible in the distance direction defining the measurement direction and essentially rigid transversely thereto (figures 1, 2).

(l) As to claim 14, Matsumoto discloses the sensor arrangement having two force sensors (185) which are arranged at a distance from one another in the direction of the axis of rotation of the spindle (120) and being held between the two holder elements and which are supported mirror-symmetrically on the two holder elements with respect to an axial longitudinal plane of the spindle (120) perpendicular to the force measurement direction (figures 1, 2).

(m) As to claim 15, Matsumoto discloses nuts (187) functioning as a spring element being assigned to each force sensor (185) prestressing the force sensor (185) in the predetermined force measurement direction (figures 1, 2; column 11, lines 19-30).

(n) As to claim 16, Matsumoto discloses the force sensor (185) and the spring element/nut (187) assigned to it being supported, prestressed, in series with one another on one of the two holder elements and the other holder element being supported on the force sensor (185) in the force path between the force sensor (185) and the spring element/nut (187) (figures 1, 2; column 11, lines 19-30).



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(o) As to claim 17, Matsumoto discloses the force sensor (185) and the spring element/nut (87) being held in the force measurement direction on both sides between double-row cylindrical bearings (112a, 112b) (figures 1, 2; column 11, lines 19-30).

### ***Allowable Subject Matter***

7. Claims 10, 13 and 18-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

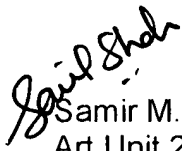
8. The prior art made of record and not relied upon, cited in the attached 892 form, is considered pertinent to applicant's disclosure.

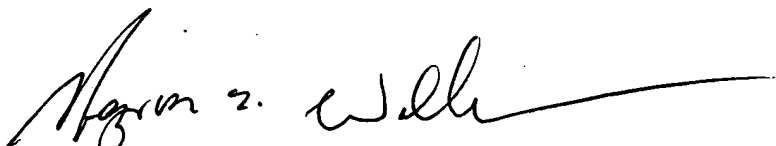
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir M. Shah whose telephone number is (571) 272-2671. The examiner can normally be reached on Monday-Friday 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Samir M. Shah  
Art Unit 2856  
3/29/2007

  
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